

**IBCC Colorado River Basin  
Minutes of Meeting on July 26, 2010**

**Main topics: Energy Water study suggests 150,000 af needed for oil shale development  
CWCB update on municipal water conservation suggest 720,000 af can be saved by 2050**

1. **Next Meeting: Monday, September 27, 2010. Glenwood Springs Community Recreation Center, 1:00 to 4:00.**
2. **Reporter: These minutes were prepared by Ken Ransford, Esq., CPA, 970-927-1200, [kenransford@comcast.net](mailto:kenransford@comcast.net).**
3. **Approve June 2010 meeting minutes.** The minutes were approved unanimously.
4. **Upcoming meetings:** September 14-15, CWCB meeting  
September 16, 2010, CRWCD annual board meeting in Grand Junction.  
September 18, Mesa County Water District tour.

**.Colorado River flow report – Jim Pokrandt.**

|  |           |
|--|-----------|
| Colorado River flow in Glenwood Springs below confluence with Roaring Fork River | July 26   |
| Average flow 1967-2010   | 2,340 cfs |
| Median flow 1967-2010  | 1,850 cfs |
| 2010 flow  | 1,670 cfs |

- a. The Shoshone dam will be repaired in October and flows could decrease to 1,100 cfs because the turbines will only operate at 75-80% of capacity.
  - b. Low October flows and 10,825 water demands could lead to river calls in October.
5. **Denver Water Citizens Advisory Committee seat is open.** Mel Reddig represents the Colorado River downstream of Glenwood Springs and Rick Sackbauer represents the Colorado River upstream of Glenwood Springs on this committee. Rick Sackbauer is resigning and his seat is open to a CBRT member. The committee meets once a month from 5-7:00 PM. The committee receives staff reports from Denver Water and works with Denver Water Board Commissioners. Other advisory board members include representatives from environmental, homebuilder, and suburban water provider communities. The Citizens Advisory Committee was established 40 years ago as part of the Foothills settlement.
  6. **NCNA Report – Ken Neubecker.** The flow evaluation tool is progressing, and the consultants are investigating whether willows are a better indicator of riparian health than cottonwoods. They are also using satellite and aerial photography to study stream health and to indicate the presence of beavers.
  7. **CRWAS update – Jim Pokrandt.** The CBRT's comments on CRWAS were submitted by the July 21 deadline.

- 8. Energy Water Study – High production oil shale water demand is 150,000 AF.** Ben Harding and Shaden Musleh of AMEC Earth and Environmental, 1002 Walnut Street, Suite 200, Boulder, CO 80302, 303-443-7839, presented a draft of oil shale water use estimates. About 2/3 of the \$300,000 grant from the Yampa-White and CBRT roundtables has been spent, and \$80,000 remains. Phase 1 identifies the water needed to produce oil shale, and Phase 2 describes where the water will come from.
- a. The projected new annual water supply needed to process oil shale is 120,000 AF, with another 30,000 af needed to support workers that produce the oil shale. The industry expects that up to 60,000 af of this water will be supplied by water produced onsite in the oil shale production process. Energy companies already possess sufficient water rights for this production.
  - b. 20 year lead time. Energy companies expect that an in situ technical feasibility study will be completed by 2015, and that commercial production will start in 2035. Industry projects that production will peak at 1.5 million barrels of oil per day by 2061-2071. In situ production requires heating the ground to high temperatures so that oil is squeezed out of the rock and rendered mobile so it can be transported to the surface.
  - c. Gas that is generated in the in situ process is available to generate the electricity needed to heat the earth and extract the oil. This is expected to supply the electricity that is the equivalent to 10-12 large coal-fired electrical generating plants like the one in Craig, Colorado. Earlier estimates that suggested up to 400,000 af would be needed for oil shale production assumed that most of this water would be consumed by coal-fired electrical generating plants.
  - d. Water is produced in the process because water in the rock is freed up as the oil shale is heated. This is expected to furnish 80% of the water needed for in situ oil shale production, or 60,000 af. If this is true, the industry expects that only 90,000 af will be needed to produce 1.5 million barrels per day, including 30,000 af that will be consumed by workers to produce the oil. If this is not the case, 150,000 af will be needed for oil shale production.
  - e. Rachel Richards suggested that federal approvals for oil shale production should be conditioned on meeting these water need estimates.
  - f. Karn Stiegelmeier questioned whether the water to be produced was tributary, for which a water right is required, or non-tributary, which does not require a water right. The answer is that this is site specific, and must be determined on a case-by-case basis.
  - g. Louis Meyer commented that the estimated 17,095 workers required to produce oil shale is lower than figures he's previously seen, since the 1980s Battlement Mesa oil shale scenario estimated that 30,000 workers would be needed. No explanation has been provided for the population decrease. Louis recommended that the forecast should be conservative and err on the high side rather than on the low side.
  - h. Greg Trainor made a motion to accept Phase 1 of the Energy Water Study, Caroline Bradford seconded it, and it passed unanimously.
- 9. Municipal water conservation update from CWCB.** Veva de Haza and Kevin Reidy of the CWCB explained the CWCB's estimate of water savings from municipal conservation efforts. The CWCB convened a technical advisory panel of 13 participants to address two questions: How much water can be produced by municipal and industrial conservation, and what are the best means to accomplish this.

- a. **Passive conservation** occurs naturally when citizens purchase low flow toilets and washing machines, without any prompting by municipalities. By 2050, the CWCB assumes that consumers will replace toilets twice on average, and washing machines and dishwashers 3-4 times on average, and that this will result in annual passive water savings of 102,000-154,000 af. The CWCB assumes that 154,000 af will be saved from passive conservation in the 2010 SWSI update.
- b. **Best Practices Guidebook.** Colorado Water Wise produced this with a grant from the CWCB Water Efficiency Grant Program. Arizona and California have produced these, and they have moved the water conservation discussion forward. It is 200 pages long, and a 20-page summary is being prepared. The Guidebook includes:
  1. Regulations, policies and procedures that can be implemented by Colorado water providers.
  2. Conservation oriented rate structures and tap fees.
  3. Leak detection systems to detect leaks in municipal water systems.
  4. Conservation coordinators at municipalities to direct conservation efforts.
  5. Public education efforts to teach citizens about conservation.
  6. Outdoor water efficiency, through soil amendment, limiting turf, irrigation audits, and certifying landscape professionals to install water wise landscaping.
  7. Using high efficiency fixtures in new construction.
  8. Charging for outdoor irrigation rather than permitting users to use ditch water that is basically free.
  9. Municipalities must update their conservation plans every 7 years.
- c. **Public education workshops** to explain these conservation practices will be held in Glenwood Springs on August 26, Pueblo on September 30, and Westminster on October 21.
- d. With aggressive conservation, CWCB assumes that Colorado's population in 2050 could consume only 1,080,000 acre feet. The baseline water demand is forecast to be 1,800,000 acre feet, or 720,000 af greater, if conservation efforts are not implemented:

| Forecast demand     | 2010         | 2050         |
|---------------------|--------------|--------------|
| High conservation   | 1,000,000 af | 1,080,000 af |
| Medium conservation | 1,000,000 af | 1,220,000 af |
| Low conservation    | 1,000,000 af | 1,400,000 af |
| Baseline demand     | 1,000,000 af | 1,800,000 af |

10. **Water Reserve Account Grant vote for magazine issue devoted to the Colorado Basin.** The CBRT voted 16-2 to spend \$25,000 for an issue of the Colorado Foundation for Water Education magazine that is devoted to issues that center on the Colorado River Basin. Dissenting votes expressed fear that magazine would be agenda-driven, that circulation wasn't high enough to justify the expense, and because the magazine is not a water project.

## Appendix: Summary of Prior Meetings

### December 12, 2005

The Bylaws of the Colorado River Basin Roundtable (CBRT) were approved.

Elect IBCC Round Table representatives Stan Cazier and Carlyle Carrier.

### January 23, 2006

1. Lyn Kathlene presented results from a survey of stakeholders on water issues in Colorado.
2. Eric Kuhn discussed Colorado Big Thompson project, the Blue River decree, and other water projects.
3. Louis Meyer made a motion that was seconded and approved that the CBRT break into subgroups at future meetings.

### February 27, 2006

1. Small groups determined issues to address in future meetings.
2. Lane Wyatt presented the Upper Colorado Study.
3. Richard Proctor discussed the Grand Valley Water User's Association.
4. A motion was made by Mark Fuller, and seconded by Louis Meyer, and unanimously passed that all future projects that affect the Colorado River Basin, including those that have already initiated the permitting and DEIS process such as the Moffatt Tunnel and Windy Gap, be open for review and discussion by the Roundtable.

### March 27, 2006

1. Discussion of short term and long term goals of the CBRT.

### April 24, 2006

1. Karla Brown, outgoing Executive Director of the Colorado Foundation for Water Education, made a presentation regarding the Director's Notebook.
2. Subgroups presented goals. The four subgroups were:
  - Consumptive use
  - Non-consumptive use
  - Water availability
  - Education
3. Louis Meyer made a motion that was seconded and approved to discuss the topic of determining the baseline data for minimum stream flow needs in the Colorado River basin, for discussion at the May, 2006 meeting.

### May 22, 2006

1. The Colorado Basin Roundtable decided that a quarterly meeting with other Roundtables is a good idea.
2. Presentation by Gary Severson, Executive Director of Northwest Colorado Council of Governments, on demographic trends in the Upper Colorado Basin.
3. Colorado Department of Natural Resources Handbook, *Water Supply and Needs Report for Colorado Basin*, was handed out.

#### June 26, 2006

1. Russell George, Director of Colorado Department of Natural Resources, presented a discussion on the \$10 million/year IBCC grant requests (\$40 million total).
2. Don Carlson of the Northern Colorado Water Conservancy District (Northern), discussed Northern's plan to take over the Bureau of Reclamation's operations and maintenance of the Colorado Big Thompson project, except for operations at the Green Mountain Reservoir.
3. Jim Pearce of the Colorado River Water Conservation District made a presentation on the Green Mountain Reservoir pump back.
4. A motion was made to request the Colorado congressional delegation to ensure that the Grand Junction office of the Bureau of Reclamation maintain oversight of the Green Mountain Reservoir operations and maintenance.

#### July 24, 2006

1. Bill Bates, Denver Water Board, discussed the 2006 Shoshone power plant agreement between the City of Denver and Public Service Company (Xcel) in which Denver secured a call reduction of up to 550 cfs at the Shoshone power plant between March 20 and May 20 each year in years that Denver Water's projected reservoir storage capacity is less than 80%. The actual water saved will vary from year to year, due to the complex relationship between Xcel's Shoshone call, downstream priorities, water availability at diversion points and actual native flow available in the stream. Dave Merritt estimates that the agreement may generate 6,000 to 10,000 maximum additional acre feet for Denver in any year that Denver Water's projected reservoir storage capacity is less than 80%.
2. Bob Smith, news anchor for KKCT television station in Grand Junction, made a presentation to promote Grand Valley Lake, a proposed 195,000 acre foot reservoir on Orchard Mesa.
3. The roundtable discussed recommendations to the CWCB for how to allocate the SB 179 \$10 million grants.
4. The roundtable unanimously agreed to revise the June 2006 resolution to recommend that the Grand Junction Bureau of Reclamation office manage Green Mountain Reservoir. The revised resolution recommends that the reservoir be managed by an unprejudiced agency in a fair and impartial manner.

#### August 26, 2006

1. Presentation by Connie Woodhouse, Tree Rings and Past Flows on the Colorado River.
2. IBCC Report: New IBCC subcommittees were created: (1) Needs Assessment Work Group to study

instream flows and water quality; (2) Education and Outreach: How to get public input back to the IBCC, so that special interest groups do not dominate; and (3) Water Supply Reserve Account Guidelines to determine how to allocate SB-179 grant money.

3. Changes to the SB 179 Grant Guidelines were discussed and agreed upon to forward to the IBCC and CWCB.

#### September 25, 2006

1. CBRT Bylaws were approved, and the officer slate was re-elected, with no change from the prior year to either the bylaws or the officer slate.
2. Subcommittees met to determine potential Water Supply Reserve Account grant applications.
4. Stan Cazier recommended that a representative from XCEL energy come to the November CBRT meeting to discuss Shoshone power plant operations, and that the CBRT discuss drafting the letter and meeting with Denver after that discussion. Ken Neubecker seconded the motion, and it passed unanimously.

#### October 23, 2006

1. The CBRT report to the legislature for 2005-06 was edited, with changes stressing that the CBRT believes SWSI inadequately addressed consumptive and nonconsumptive needs assessment and, in particular, failed to address energy development's impact on water supply and availability.
2. CDM (Camp Dresser McKee) was introduced as the engineering firm charged with performing the needs assessment.
3. Group broke out into consumptive and nonconsumptive groups to discuss SB 179 and HB 1400 grant requests, and decided to prioritize these at the November 2006 meeting.
4. No motions were voted upon. However, the CBRT members discussed and stated its strong belief that a basin wide needs assessment is needed.

#### November 27, 2006

1. The CBRT approved unanimously a motion by Lane Wyatt that CDM prepare a non-consumptive needs assessment of the Colorado River basin.
2. The CBRT approved unanimously a motion by Lurline Curran that the CBRT join the Arkansas, Denver Metro, and South Platte roundtables in requesting that SB 179 funds be used for a 10825 Water nonconsumptive needs assessment.
3. Tom Pitts, P.E., water user's representative for the Upper Colorado River Endangered Fish Recovery Program, discussed minimum stream flow requirements to protect endangered fish in the Colorado River through Garfield and Mesa Counties.
4. Tim Sarno, Town Manager of Palisade, and Pete Atkinson of WATER, requested \$100,000 from SB 179 to fund the Palisade whitewater park at the Price Stubbs roller dam just upstream of Palisade on the Colorado River. Decision on the grant request was postponed until the December CBRT meeting.

#### December 18, 2006

1. The CBRT voted on the following grant requests; 18 votes needed to forward to the CWCB for consideration:

| CBRT Approval to Spend CBRT \$ | CBRT Approval to Spend CWCB \$ | Applicant and Grant Purpose   | CBRT Vote to spend CBRT Funds | CBRT Vote to spend CWCB Funds |
|--------------------------------|--------------------------------|---|-------------------------------|-------------------------------|
| \$40,000                       |                                | Ruedi Power Authority – Roaring Fork Watershed Plan   | 27                            | 7                             |
| 30,000                         |                                | Grand County – Stream Management Plan methodology   | 27                            | 6                             |
|                                | 250,000                        | Eagle County – Increase Eagle Park Reservoir by 155 acre feet   |                               | 24                            |
|                                | 1,500,000                      | Grand County – Purchase share in Vail Ditch   |                               | 26                            |
|                                | 300,000                        | CBRT – Join with Yampa Roundtable for Energy Development Water Needs Assessment   |                               | 25                            |
|                                | 200,000                        | CBRT – Join with Metro Denver and South Platte Roundtables for analysis of 10825 Water and Endangered Fish Recovery Program |                               | 25                            |
|                                |                                | Bull Creek Reservoir Co. – Enlarge reservoir. \$150,000 request, did not pass   | 13                            | 16                            |
|                                |                                | Palisade – Price Stubbs Roller Dam Whitewater Park - \$100,000 did not pass   | 5                             | 10                            |
|                                |                                |   |                               |                               |

2. A non-consumptive needs assessment working group was established to develop the parameters of a grant request for a non-consumptive needs assessment. Ken Neubecker, Rose Ann Sullivan, Louis Meyer, Bruce Hutchins, Phil Overeynder, Ken Ransford, Tom Hilleke, and Lane Wyatt volunteered to join this committee
3. Tom Clark, Greg Trainor, Mark Fuller and Mike Wajeck formed an energy- needs assessment committee to study energy extraction impacts on Western Slope water.
4. The CBRT approved changes to Amendment 18 that was being discussed by the CWCB. Amendment 18 would permit the CWCB to set aside 20% of severance tax Revenue allocated to the Department of Natural Resources for new water projects. The CBRT voted to limit the scope that the severance tax revenues could be used for to the following types of water projects: “addressing compact calls, drought mitigation, endangered species, instream flows, river restoration, and recreation.”

#### January 22, 2007

1. The CBRT voted unanimously to send a letter to Governor Bill Ritter commending Russell George’s leadership in the roundtable process.
2. Ken Neubecker reported that a subcommittee met to discuss the non consumptive needs assessment required by HB 1177, and listed 8 areas the non-consumptive needs assessment should cover.
3. The 2006 Shoshone Reduction Agreement between Denver and Xcel energy was discussed, with presentations by Bill Bates, Randy Rhodes, Bill Sappington, Ken Neubecker, and David Graf.

#### February 26, 2007

1. Chips Barry, head of Denver Water, held a question and answer session with Eric Kuhn and other parties regarding the current mediation between Denver Water and several Western Slope water entities to address the Moffat firming project, and the Blue River Decree.
2. Kirby Wynn, USGS, and Cathy Kay, Western Colorado Congress, discussed water requirements for oil shale and mineral development on the Western Slope
3. Rick Brown, CWCB, discussed and suggested improvements to recent SB 179 grant applications.

#### March 26, 2007

1. James Pritchett, CSU agricultural economist, discussed the impact to local tax revenues if irrigated agricultural land is taken out of production when agricultural water uses are redirected for municipal and industrial uses.
2. Eric Kuhn, Colorado River Water Conservation District, discussed the potential impact of global warming on Colorado water resources, and the need for Colorado to determine how it will respond to a call on the river by lower basin states.
3. Ken Neubecker, Trout Unlimited, explained the components of a non-consumptive needs assessment.

#### April 23, 2007

1. Lynn Kathleen, PhD., conducted a network analysis survey funded by the IBCC Outreach and Education Subcommittee to determine spheres of influence among water stakeholders.
2. Rick Brown, CWCB, led a discussion of the grants requested by Grand County and the Roaring Fork Watershed Group, and whether the results of the studies funded by these grants could interfere with existing water rights.
3. John Sikora discussed the energy subcommittee's progress in determining energy development's water needs, and attempts to discover water rights owned by energy companies on the Colorado and White rivers.

#### May 21, 2007

1. Art Bowles presented a request for \$25,000 from the Basin Reserve Account for well monitoring equipment and a study in Missouri Heights, in Carbondale.
2. Irvin Johnson presented a request for \$120,000 from the Statewide Reserve Account to maintain and improve Bull Creek Reservoir No. 4.
3. Irvin Johnson presented a request for \$50,000 from the Basin Reserve Account to pay for engineering studies of Bull Creek Reservoir No. 5.
4. David Merritt of the Colorado River Water Conservation District and CBRT chair, discussed salinity and selenium in the Colorado River.



#### June 25, 2007

1. The Missouri Heights well monitoring grant request for \$25,000 from the Basin Reserve Account was approved with 22 votes in favor and 0 opposed.
2. The grant request to improve Bull Creek Reservoir No. 4 for \$120,000 from the Statewide Funding Account was approved with 22 votes in favor and 0 opposed.
3. The grant request to study the spillway at Bull Creek Reservoir No. 5 for \$50,000 from the Basin Funding Account was approved with 20 votes in favor and 1 opposed. Phil Overeynder opposed the grant request because he did not feel that Bull Creek Reservoir Company adequately explained how it would pay for the spillway improvements once the engineering studies were complete.
4. Jeff Baessler and Linda Basin made a presentation on Colorado's In Stream Flow program administered by the CWCB.
5. Eric Hecox of the CWCB made a presentation regarding progress on the Non Consumptive Needs Analysis (NCNA) study of water in Colorado.

#### July 23, 2007

1. Dave Merritt presented an overview of the Water Availability Study, designed to determine water available for current and future development in Colorado.
2. A handout described Aaron Million's Green River Pumpback proposal. A memo by Eric Kuhn encouraging the CRWCD Board to oppose the project until the consumptive, non-consumptive, and energy needs assessments are completed, and a response by Million's attorneys to allow the proposal to go forward and be evaluated under the NEPA process were also included.

#### September 24, 2007

1. Eric Hecox led a discussion of the Water Availability Study scope of work. Tyler Martineau and Ken Spann, Gunnison Roundtable members, attended and commented.

Handouts included the Bylaws for the CBRT, a 15-page Colorado River Water Availability Study Scope, September 12, 2007 draft, and a magazine by the Colorado Water Education Foundation regarding groundwater in the Denver Basin was distributed.

#### October 22, 2007

1. The CBRT held a joint meeting with the IBCC. Dave Merritt presented the major issues affecting the Colorado River Basin to the IBCC.
2. The minutes summarize water issues that concern counties represented in the Colorado Basin Roundtable. Tables in the minutes describe current transbasin diversions to the East Slope that total nearly 500,000 AF, and a list of Colorado River Basin reservoirs that total over 1,340,000 AF storage.
3. Dan Birch, a Yampa Roundtable member and engineer with the CRWCD, described the Yampa pumpback proposed by the NCWCD.
4. The proposed Green Mountain pumpback to pump water upstream to Dillon was discussed.

Handouts included an updated Colorado River Water Availability Study Scope, October 19, 2007 draft, a press release by the Colorado River District urging the State Engineer to delay adopting rules to administer a Compact Call until the Water Availability Study is completed, Dave Merritt's summary of Colorado Basin issues, and a summary of comments on the Water Availability Study that were sent to the CWCB.

#### November 26, 2007

1. John Redifer of the CWCB explained CWCB's proposed Policy 18, which would permit the CWCB to set aside 20% of its Severance Tax revenues to invest in water projects in return for water rights that the CWCB could sell or lease. The CWCB presently only holds water rights for Instream Flow (discussed at the June 2007 CBRT meeting).
2. Grant proposals were presented requesting \$327,900 from the CBRT Basin Account. To date, \$115,000 has been allocated from this account, and \$1 million is available over 6 years.

#### December 17, 2007

1. The CBRT Non-Consumptive Needs Assessment committee held a meeting that discussed the timetable of the Non-Consumptive Needs Assessment data would be collected (18 months), and a discussion of the data collection techniques to quantify minimum flows required to maintain healthy river ecosystems.
2. The CBRT approved grants totaling \$300,000 from the CBRT Basin Account and \$127,900 from the Statewide Account. To date, \$415,000 has been allocated from the CBRT Basin Account out of \$1 million total available over 6 years. The grants approved include:

| Proposal  | CBRT \$   | CWCB \$   |
|---|-----------|-----------|
| Grand County Phase 2 Stream Flow Mgmt Plan          | 100,000   |           |
| Roaring Fork Watershed Study Phase 2                | 40,000    |           |
| Old Dillon Reservoir Enlargement                    | 100,000   |           |
| Fraser River Berthoud Pass sand collection facility | 60,000    | 127,900   |
| Total   | \$300,000 | \$127,900 |

3. Jim Broderick, Executive Director of the Southeastern Colorado Water Conservancy District, Pitkin County Commissioner Rachel Richards, and Aspen City Engineer Phil Overeynder discussed the PSOP, or Preferred Storage Option Plan, for increased storage alternatives in the Fryngpan-Arkansas basin. The Southeastern Colorado Water Conservancy District recommends increasing dam heights to store 75,000 additional acre feet in Pueblo Reservoir and 14,000 additional acre feet in Turquoise Lake.

#### January 28, 2008

1. Scott Balcomb, Glenwood Springs attorney, discussed the Upper Colorado River Commission the Shortage Criteria recently adopted by the 7 states that are participants in the Colorado River Compact, and Colorado's need to develop a response to a forthcoming Compact Call.
2. The settlement between Denver and the Eagle Water and Sanitation District was discussed in which Eagle settled its lawsuit against Denver for failure to exercise due diligence in perfecting its conditional water rights. Denver relinquished conditional water rights it held in the Eagle River upstream of Minturn and in

the Eagles Nest Wilderness Area, but retained the right to develop the Wolcott Reservoir and fill it with withdrawals from the Eagle River and Piney River.

3. John Bickerman discussed the Global Settlement negotiations.

#### February 25, 2008

1. Stan Cazier and Carlyle Currier led a discussion of what the CBRT would like the Colorado River to look like in 50 years with respect to water supplies. Roundtable members recommended that sources of water be addressed in local land planning decisions; that agriculture should not be dried up to permit bluegrass lawns and ornamental shrubs on the Front Range; that agriculture should be preserved in Colorado; the Front Range conserve more water; and that the water availability, consumptive and non-consumptive needs analyses be completed before additional east slope diversions occur.
2. Mark Levorson of URS described the impact that natural gas drilling in Garfield County is having on water supplies. Drilling activities can permit saline water from deep water aquifers to migrate up through vertical fractures into potable water supplies, and permit saline plumes to migrate to the Colorado River.
3. A preliminary report on the energy demand water needs assessment was presented.

#### March 24, 2008

1. The CBRT discussed the CWCB's denial of the Roaring Fork Watershed and Grand County Stream flow Management Plan grant applications on the grounds that they constitute unacceptable challenges to Colorado water law.
2. Lane Wyatt reported on the Non-Consumptive Needs Assessment committee progress. The NCNA committee selected the Roaring Fork River and the Colorado River between Kremmling and Dotsero in order to do model NCNAs.
3. Rod Sharp discussed educational town meetings, and suggested that each CBRT Roundtable member schedule a town meeting in their area promoting the CBRT process.

#### April 28, 2008

1. Eric Kuhn discussed his draft "Vision for a West Slope Water Future."
2. The Grand County Stream Flow Management Plan, Phase II, was discussed by consultants Peggy Bailey and Thomas Wesche.

#### May 19, 2008

1. Carlyle Currier discussed efforts to conserve water consumed in agricultural operations.
2. Harris Sherman asked the Roundtable to address what the State should look like in 50 years and to comment on the IBCC/Roundtable process.
3. Rick Brown discussed SWSI Phase II.

4. Water Reserve Account grant requests were discussed.

| Proposal   | CBRT \$   | CWCB \$   |
|--|-----------|-----------|
| West Divide Water Conservancy District proposal for feasibility study of 3 Thompson Creek reservoirs.                                  | \$40,000  |           |
| Battlement Reservoir #3 reconstruction to provide habitat for Colorado native Cutthroat Trout  | 80,000    |           |
| Membrane treatment study to result in zero level discharge and reduce wastewater byproducts to solids that can be stored in landfills. | 200,000   | 600,000   |
| Total  | \$320,000 | \$600,000 |

#### September 22, 2008

1. Jewlya Lynn and Lyn Kathleen discussed how a board without legal authority such as the CBRT can make a difference. The CBRT discussed past issues that have been voted upon, and policies that could be decided upon in the future by the CBRT.
2. Eric Hecox gave an update on the IBCC vision statement.
3. The CBRT unanimously voted to oppose Amendment 52, which is designed to cap severance tax revenues to 1.7% of oil produced (this is the tax currently being levied) and to divert severance tax revenues from the Department of Natural Resources to funding improvements on Interstate 70.

#### October 20, 2008

1. Sherri Thompson, BLM Program Manager for the Programmatic Environmental Impact Statement (PEIS), discussed the PEIS. It is being forwarded to the governors of Utah, Wyoming and Colorado for their comments.
2. Greg Trainor reported the Phase 1 Final Draft of the Energy Water Needs Assessment commissioned by the Water and Energy Subcommittee. Estimates of water needed for energy development in the Colorado and Yampa-White River basins range from 30,000 to 410,000 acre feet, with oil shale accounting for 380,000 af. The Roundtable unanimously voted to approve the draft and forward it to the IBCC, the CWCB, and the Governor for consideration prior to his approving the PEIS.
3. Jewlya Lynn and Lyn Kathleen presented a model that the CBRT can use to adopt policies and to promote the policies to interested stakeholders. The CBRT used the model in approving the Phase 1 Energy Water Needs Assessment.

#### November 24, 2008

1. Lane Wyatt reported that the CWCB has declined to fund the Non-Consumptive Needs Assessment as required by House Bill 1177.
2. Eric Kuhn reported on the Colorado River Compact Curtailment Commission, which has been created to develop a statewide plan to respond to a Compact Call.

3. Jim Pokrandt reported on the 4 basin roundtable meeting in Gunnison on November 14, and discussed the CWCB's prediction that meeting the Gap will result in a 35-70% reduction in irrigated acreage in Colorado.

#### January 26, 2009

1. Eric Hecox and Jacob Bornstein reviewed the Vision Statement that is being presented to the CWCB and the IBCC.
2. The CBRT approved \$315,000 from the Basin Reserve Account to pay for a nonconsumptive needs analysis. The CWCB had earlier agreed to fund this, but failed to do the analysis, so the CBRT agreed to fund it. The goal is to develop a flow monitoring tool and to test it at 3 locations on the Colorado River between Pumphouse and Dotsero. If successful, the flow monitoring tool will be an inexpensive alternative to site specific analyses, which cost up to \$50,000 per site to determine river flows necessary to maintain riparian health. The grant proposal will be discussed by the CWCB at its March board meeting.

#### February 23, 2009

1. Eric Hecox and Jacob Bornstein discussed agricultural water issues statewide and as they pertain to the Colorado River basin.
2. Blaine Dwyer updated the CBRT on the progress of the Water Availability Study and requested input into the model and the assumptions that are being made in it.

#### April 27, 2009

1. Eric Hecox discussed Identified Projects and Processes including Aaron Million's Green River Pumpback, the Yampa Pumpback, and the Green Mountain Pumpback, as well as conservation efforts, and requested Colorado Basin Roundtable members to comment on them.
2. Denver Water and Northern discussed environmental mitigation efforts they are offering to preserve stream flows in the Upper Colorado River.
3. Eric Barber of the Arkansas Roundtable visited and requested that the CBRT spend \$15,000 to study whether Fry-Ark water can be stored in underground aquifers in the Arkansas Basin.
4. Ray Tenney, engineer with the CRWCD, described town meetings that have been held regarding Aaron Million's Green River Pumpback from Flaming Gorge Reservoir to Denver.

#### August 24, 2009

1. Chris Treese commented on progress in the global settlement negotiations, and on the IBCC meetings.
2. Ken Neubecker reported on progress of the water flow evaluation tool (WFET) and Front Range concerns about the use of the tool.
3. Kristen Maharg reported on the member survey results of the survey conducted by the Colorado Foundation for Water Education
4. The Roundtable voted unanimously to hold a workshop to explain the WFET to skeptical Front Range interests.

#### November 23, 2009

1. Chris Treese commented on progress in reaching an agreement for 10825 water.
2. The CBRT Voted unanimously to continue the non-consumptive needs analysis.
3. Bill Bates of Denver Water described Denver Water's proposed Moffatt Tunnel firming project. The CBRT Voted unanimously to draft a response to the EIS created for the Moffatt Tunnel firming project.
4. Clark Anderson of the Sonoran Institute discussed linking water supplies to future land development proposals.
5. Mark Nieslanik on behalf of the Tybar Ranch owned by Betsy Considine requested \$100,000 from CBRT Basin Reserve Account to construct a spillway and repair broken pipe at the outlet of Dinkle Lake, southeast of Carbondale on the north flank of Mr. Sopris. The CBRT voted this down.
6. Tim Beck on behalf of Spring Valley Holding LLC, which owns and plans to develop 6,000 acres into a residential PUD, requested funds to improve Hopkins Reservoir 6 miles east of Glenwood Springs. The CBRT voted this down.

#### January 25, 2010

1. A CBRT response prepared by Karn Stieglemeier, Summit County Commissioner, to the Army Corps of Engineers Environmental Impact Statement for Denver Water's 18,000 acre foot proposed diversion from the Upper Fraser River into the Moffatt Tunnel collection system was discussed.
2. Louis Meyer described the threat of emerging contaminants in the river.
3. The CBRT voted unanimously to request the Army Corps of Engineers to extend the comment period for the Environmental Impact Statement beyond March 1, 2010.

#### February 22, 2010

1. CBRT members discussed the response to the 18,000 AF Moffatt diversion EIS.
2. The CBRT voted unanimously to send a brief comment to the Army Corps regarding the Draft EIS for the Moffatt diversion, and more extensive comments to remaining roundtables.

#### March 22, 2010

1. Rachel Richards made a motion to send a letter to not permit mercury waste to be stored in Mesa County due to its potential interference with Colorado water supplies, and Karn Stiegelmeier seconded it. It passed unanimously.
2. Eric Kuhn and Lurline Curran updated the CBRT on the settlement negotiations.
3. Jacob Bornstein updated the CBRT on anticipated Western Slope population growth and water needs.

#### May 24, 2010

1. The meeting of the 4 western slope roundtables on May 10 and the Colorado River Water Availability Study (CRWAS) Phase I report were discussed.

2. Water supply Reserve Account applications were introduced to be voted on at the June meeting.
3. Jacob Bornstein updated the CBRT on the CRWAS.

#### June 28, 2010

1. Drew Beckwith and Bart Miller of Western Resource Advocates discussed municipal water savings from conservation.
2. Kathleen Curry and Alex Davis led a discussion of potential legislative changes to water law.
3. Water supply Reserve Account applications were introduced to be voted on at the June meeting.
4. Jacob Bornstein updated the CBRT on the CRWAS.

#### July 26, 2010

1. Ben Harding and Shaden Musleh of AMEC summarized Phase 1 of the Energy Water study, which suggests that up to 150,000 acre feet will be needed for a high production oil shale scenario. Greg Trainor made a motion to accept Phase 1 of the Energy Water Study, Caroline Bradford seconded it, and it passed unanimously.
2. Viva deHaza and Kevin Reidy provided an update on the CWCB's estimate of water available from conservation practices over the next 40 years.
3. The CBRT voted 16 to 2 to spend \$25,000 of the CBRT Basin Reserve Account to produce an issue by the Colorado Foundation for Water Education devoted to the Colorado River Basin issues.

## Glossary

10825 water. The Bureau of Reclamation designated 10,825 acre feet in Ruedi Reservoir as being available to support the Endangered Fish Recovery Program (EFRP). This was discussed at the November 2006 CBRT meeting. In an agreement scheduled to expire 12/31/09, Denver Water has voluntarily released ½ of that amount, or 5,412.5 cfs, from Williams Reservoir, and the Colorado River Water conservation District has released the remaining 5,412.5 cfs from Wolford Reservoir. If the agreement is not extended beyond 2009, prior water project approvals which permitted water appropriations from the Colorado River may not comply with the Endangered Species Act, and may be called into question. See [www.grandriver.us/10825](http://www.grandriver.us/10825) for a history of the 10825 program

20% Gap. The CBRT created the Statewide Water Supply Initiative (SWSI) to study long term water needs in Colorado. SWSI Phase 1 determined that by 2030, there would be 20% greater demand than supplies existing in 2005; this is known as the 20% Gap.

Aspinall Unit. The Aspinall Unit includes three reservoirs on the Gunnison River: (1) Blue Mesa Reservoir, designed for water storage; (2) Morrow Point Reservoir, a dam with a lot of head in a narrow canyon designed to generate hydroelectric power; and (3) Crystal Reservoir, which collects Morrow Point Reservoir releases and moderates further releases into the Gunnison River at more constant flow levels.

Blue Mesa Pump Back. A proposal to drill a tunnel below the Collegiate Range to transport water from Blue Mesa Reservoir on the Gunnison River to the Eastern Slope.

Blue River Decree. A conditional water right granted to Denver Water to withdraw water from Dillon Reservoir through the Roberts Tunnel into the North Fork of the South Platte River.

CBRT: Colorado Basin Roundtable

CDM: Camp, Dresser, McKee, the engineering firm selected by CWCB to assist the Roundtables in perform the needs assessment called for in Section 35 75-104(2)(c), CRS (as created in HB 1177) .

CDSS: The Colorado Decision Support System, a computer modeling program developed by the CWCB that predicts river flows in Colorado. The CDSS is accessed at:  
<http://water.state.co.us/pubs/datasearch.asp>.

CRWCD – The Colorado River Water Conservation District. This State Agency was founded in 1937 in response to plans by Denver Water and the NCWCD to divert Colorado River water to the Eastern Slope through the Adams and Moffatt Tunnels. The CRWCD was chartered to be "the appropriate agency for the conservation, use and development of the water resources of the Colorado River and its principal tributaries in Colorado." The CRWCD's office is in Glenwood Springs.

CWCB - Colorado Water Conservation Board: This is an agency of the State with a board appointed by the governor. It was created in 1937 for the purpose of aiding in the protection and development of the waters of the state. The agency is responsible for water project planning and



finance, stream and lake protection, flood hazard identification and mitigation, weather modification, river restoration, water conservation, drought planning, water information and water supply protection. It is the sole entity which can receive grants of conservation easements of water flows. It also administers grants from the Water Supply Reserve Account called for by SB 179.

Compact call. A call by Lower Basin States (California, Arizona and Nevada) that would require Upper Basin States (Colorado, Utah, Wyoming, and New Mexico) to limit diversions from the Colorado River and its tributaries. No Compact Call has ever been made.

Colorado River Compact - the 1922 agreement among the Colorado Basin States, and ratified by Congress in 1929. It was based upon an assumption that the average annual flow in the Colorado River at Lee Ferry is at least 15 million acre feet (maf), and that the Upper and Lower Basins would each receive 7.5 maf, to be divided among the Basins as they agreed. The 1922 agreement was predicated upon a concern that development in California was outpacing development in every other Western state, and that California would appropriate most Colorado River water unless changes were implemented to recognize the rights of each state to develop a certain amount of water in their own time frame.

Conditional water rights. Water rights that are not yet developed, but represent an intent to develop for a specific purpose in the future. They establish a priority date over later granted water rights.

Endangered Fish Recovery Program. Four fish, the Colorado pikeminnow, Razorback sucker, Humpback chub, and Bonytail, are listed as endangered species; they reside in the Colorado, Yampa-White, and Green Rivers.

Energy Development Water Needs Assessment. A study that estimates the water required for energy development in the Colorado and Yampa-White basins. The study was commissioned by the Colorado and Yampa-White Basin Roundtables and paid for by a \$300,000 Water Supply Reserve Account grant. Phase 1, released in October 2008, estimated that 30,000 af to 410,000 af is needed for energy development, with potential oil shale production accounting for about 380,000 acre feet of this. Phase 2 addresses where the water is likely to come from; it will consider the impact of redirecting the extensive conditional and absolute water rights already owned by energy industry to energy development.

Firming project. The process of transforming a conditional water right to an absolute water right. It includes legal adjudications in water court and also the construction of storage facilities or diversion points to actually put the water to beneficial use.

Green Mountain Pumpback. 300 cfs would be pumped from Green Mountain Reservoir to Dillon Reservoir with a yield of 53,000 AF. This would permit Denver Water to divert more Dillon Reservoir water through the Roberts Tunnel to the North Fork of the South Platte. A new reservoir is sited at Wolcott to hold 25,000 to 85,000 AF to replace releases that will no longer be made from Green Mountain Reservoir down the Blue River. A pumping plant on the Eagle River with 250 cfs pumping capacity would fill the proposed Wolcott Reservoir.

Green River Pumpback. A proposal by Aaron Million to divert water from the Flaming Gorge Reservoir on the Green River and pump it east along Interstate 80 and then south along Interstate 25 to the Front Range.

House Bill 1177: Passed in 2005 by the Colorado legislature, this sets up nine roundtables around in the following drainages to discuss how to meet the water demands by year 2030:

Western Slope

Colorado  
Yampa-White  
Gunnison  
San Juan

Eastern Slope

Arkansas  
Rio Grande  
North Platte  
South Platte  
Denver Metro

HB 05-1177 permits basins to study and implement voluntary transfers between basins in Colorado, while reaffirming existing water rights and the prior appropriation system. It states in relevant part:

37-75-102. Water rights - protections. (1) It is the policy of the General Assembly that the current system of allocating water within Colorado shall not be superseded, abrogated, or otherwise impaired by this article. Nothing in this article shall be interpreted to repeal or in any manner amend the existing water rights adjudication system. The General Assembly affirms the State Constitution's recognition of water rights as a private usufructuary property right, and this article is not intended to restrict the ability of the holder of a water right to use or to dispose of that water right in any manner permitted under Colorado law.

HB 1177 has 5 stated goals:

1. Consumptive needs analysis
2. Non- Consumptive needs analysis
3. Water availability study
4. Solve the 20% gap
5. Public education of water issues facing Colorado

In-stream flow. A flow rate appropriated by the Colorado Water Conservation Board which represents the amount of water deemed necessary to protect the environment to a reasonable degree. This determination takes into consideration the availability of water under water rights administered. An In-Stream Flow right is administered in priority, along with all other water rights on the stream.

Identified Projects and Processes (IPPs). These are water diversion and storage processes that have been identified by the CWCB in each major river basin in Colorado that provide additional water to meet future municipal and industrial (M&I) water needs. The IPPs are in various stages of development, and are projected to provide about 500,000 additional acre feet. Many are expansions of existing water projects. The CWCB estimates that Colorado will need up to 1.75 maf under a high growth scenario in 2050.

Maybell Pump Back: A proposal by the Northern Water Conservancy District to pump water from the Yampa River to the Eastern Slope.

NCNA. Non consumptive needs assessment conducted pursuant to HB 1177 to determine the

amount of water needed to meet environmental and recreational uses.

Northern or NCWCD: The Northern Colorado Water Conservancy District, the agency that contracts for delivery of water from the Colorado Big Thompson Project that diverts water from the Upper Colorado River at collection facilities in Grand County for distribution to the eastern slope.

PHABSIM: Physical habitat simulation. A technique developed in the 1970s by the US Fish and Wildlife Service to determine optimal and critical river flows necessary to maintain healthy river ecosystems. A river site is first selected that has favorable fish habitat. At each selected site, river volumes are measured at ten transects (a transect is a line across the river that is perpendicular to the river flow), at 3 different times during high, medium and low flows from early spring to late fall. A Habitat Suitability Curve is developed for each site that indicates critical flows below which fish habitat is imperiled.

PBO: A Programmatic Biological Opinion for the Recovery of the Endangered Colorado River fish, which requires a number of measures which function as “reasonable and prudent alternatives” for diversions that would otherwise harm endangered fish in the Upper Colorado River.

Produced Water: This is water that has been produced from human activity, such as water reclaimed through sewage treatment, or water which has been pumped to the surface in the course of coalbed methane drilling activities.

PSOP: The Preferred Storage Option Plan, a series of water storage options to capture additional water from the Fryingpan and Roaring Fork River drainages for delivery to the Eastern Slope, discussed at the November 2007 CBRT meeting. PSOP essentially refers to increasing the height of existing reservoirs in the Arkansas River drainage so that they can capture more water diverted from the Roaring Fork and Fryingpan drainages. Front Range municipalities have long-filed conditional water rights to capture additional water but, without PSOP, they have no means to collect and store the additional diversions.

RICD: Recreation In Channel Diversion. A water right awarded in order to protect recreational boating in the river.

Shoshone Call: Xcel energy has a call on the Colorado River with a priority dating to 1907 permitting it to run 1,250 cfs through the Shoshone power plant turbines. In 2006, Xcel and Denver Water entered into an agreement which permits Denver to reduce the call by 704 cfs at the Shoshone power plant between March 20 and May 20 in years that Denver Water’s projected reservoir storage capacity is less than 80%; discussed at the July 2006 CBRT meeting.

Substitution. The Blue River Decree requires that Denver Water and Colorado Springs Utilities provide water to Green Mountain Reservoir on the Blue River so that there is sufficient water to meet late summer agricultural calls by ranchers whose water rights are superior to the 1937 decreed Colorado-Big Thompson diversions. In dry years that Green Mountain Reservoir may not fill (about one in seven on average), Colorado Springs is required to release water out of Williams Reservoir and the Blue River to meet its obligation to keep Green Mountain Reservoir full. The Bureau of Reclamation initiated an EIS process in 2008 to determine whether Colorado Springs Utilities may meet its Substitution obligation by releasing water from Wolford Mountain Reservoir

north of Kremmling or from Homestake Reservoir west of Vail. For more information about this EIS, see [http://www.usbr.gov/gp/ecaofinal/bluervr\\_newsletter.pdf](http://www.usbr.gov/gp/ecaofinal/bluervr_newsletter.pdf)

SWSI: CWCBC manages the Statewide Water Supply Initiative (SWSI), which was created to study long term water needs in Colorado after the Big Straw Initiative failed in 2003.

Upper Colorado River Commission: A commission created in 1948 pursuant to the Upper Colorado River Compact of the four Upper Basin States: Colorado, Wyoming, Utah and New Mexico. It controls the Colorado River upstream of Lees Ferry, and is charged with monitoring that each the Upper Basin state delivers its quota toward the 75 maf required to be delivered to the Lower Basin states every 10 year period.

Water Availability Study: SB 07-122 appropriated \$500,000 to study the extent of Colorado water available for current and future needs. The Water Availability Study is designed to identify whether Colorado still has water available under the 1922 Colorado River Compact for development, and what risks are associated with developing it. Phase 1 of the Water Availability Study is expected to be completed by July 2009.

Water Supply Reserve Account: Senate Bill 179, passed in 2006 by the Colorado legislature, allocates \$10 million per year for four years to be allocated among the 9 roundtables to pay for water projects or studies.

Wolcott Pumpback: A plan to build a reservoir on a tributary to the Eagle River near Wolcott. This would store water that could be exchanged back to Dillon Reservoir to enhance Denver Water's yield from the Blue River (Dillon Reservoir/Roberts Tunnel).

Yampa Pumpback: A proposal to pump 300,000 acre feet from the Yampa River near Maybell to the Front Range, first discussed in detail at the November 24/07 CBRT meeting.

Summary Table of Grant Requests and Funding Decisions

| CBRT<br>Approval<br>to Spend<br>CBRT \$ | CBRT<br>Approval<br>to Spend<br>CWCB \$ | Applicant and Grant Purpose   | CBRT<br>Votes<br>for/opp'd<br>to spend<br>CBRT<br>Funds | CBRT<br>Votes<br>for/opp'd<br>to spend<br>CWCB<br>Funds | CBRT<br>Vote<br>Date | Date<br>CWCB<br>Approved<br>or Denied | Amount<br>CWCB<br>Approved |
|---|---|---|---|---|----------------------|---------------------------------------|----------------------------|
| \$40,000                                |   | Ruedi Power Authority – Prepare Roaring Fork Watershed Plan   | 27  | 7   | 12/18/06             | Approved<br>3/23/07                   | 100%                       |
|   |   | Grand County – Stream Management Plan methodology. \$30,000 approved, but Grand County turned down due to CWCB constraints.           | 27  | 6   | 12/18/06             | Approved<br>3/23/07                   | 100%                       |
|   | 250,000                                 | Eagle County – Increase Eagle Park Reservoir by 155 acre feet   |   | 24  | 12/18/06             | Approved<br>3/23/07                   | 100%                       |
|   | 1,500,000                               | Grand County – Purchase shares in Vail Ditch  |   | 26  | 12/18/06             | Approved<br>3/23/07                   | 100%                       |
|   | 300,000                                 | CBRT – Join with Yampa Roundtable for Energy Development Water Needs Assessment   |   | 25  | 12/18/06             | Approved<br>3/23/07                   | 100%                       |
|   | 25,000                                  | CBRT – Join with Arkansas, Metro Denver and South Platte Roundtables for analysis of 10825 Water and Endangered Fish Recovery Program |   | 25  | 12/18/06             | Approved<br>3/23/07                   | 100%                       |
|   |   | Bull Creek Reservoir Co. – Enlarge reservoir. \$150,000 request, did not pass   | 13  | 16  | 12/18/06             |                                       |                            |
|   |   | Palisade – Price Stubbs Roller Dam Whitewater Park - \$100,000, did not pass  | 5   | 10  | 12/18/06             |                                       |                            |
| 25,000                                  |   | Missouri Heights well monitoring program  | 22 / 0  |   | 6/25/07              | Approved<br>8/15/07                   | 100%                       |
| 50,000                                  |   | Bull Creek Res. #5 spillway analysis  | 20 / 1  |   | 6/25/07              | Approved<br>8/15/07                   | 100%                       |
|   | 120,000                                 | Bull Creek Res. #4 reservoir improvements   |   | 22 / 0  | 6/25/07              | 8/15/07<br>failed                     | 0%                         |
| 100,000                                 |   | Grand County Phase 2 Stream Flow Mgmt Plan  |   | 19/0  | 12/17/07             |                                       |                            |
| 40,000                                  |   | Roaring Fork Watershed Study Phase 2  |   | 20/0  | 12/17/07             |                                       |                            |
| 100,000                                 |   | Old Dillon Reservoir Enlargement  |   | 17/2  | 12/17/07             |                                       |                            |
| 60,000                                  | 127,900                                 | Fraser River Berthoud Pass sand collection facil  | 16/3  | 11/2  | 12/17/07             |                                       |                            |
| 40,000                                  |   | West Divide Water Conservancy District  |   |   | 5/19/08              | Approved                              |                            |

|           |             |   |      |  |           |                    |      |
|-----------|-------------|---|------|--|-----------|--------------------|------|
|           |             | proposal for feasibility study of 3 Thompson Creek reservoirs.  |      |  |           | June 2008          |      |
| 80,000    |             | Improve Battlement Reservoir #3 to protect Native cutthroat trout habitat   |      |  | 5/19/08   | Approved June 2008 | 100% |
| 315,000   |             | Develop flow evaluation tool (FET) and conduct 3 site assessments on the Colorado River between Pumphouse and Dotsero to test the FET.  | 18/1 |  | 1/26/09   |                    |      |
|           |             | Tybar Ranch owned by Betsy Considine requested \$100,000 to construct a spillway and repair the outlet pipe at Dinkle Lake 8 miles southeast of Carbondale.   |      |  | Dec. 2009 | Turned down        |      |
|           |             | Tim Beck on behalf of Spring Valley Holding LLC, which owns and plans to develop 6,000 acres into a residential PUD, requested funds to improve Hopkins Reservoir 6 miles east of Glenwood Springs. |      |  | Dec 2009  | Turned down        |      |
| 25,000    | 175,000     | \$200,000 grant to pay for improvements to repair the Grand River Ditch above Silt that was blown out in the 2009 runoff.   | 12/8 |  | June 2010 |                    |      |
| 50,000    | 175,000     | Improve Lede Reservoir to provide a water supply for Gypsum's future growth.  | 17/3 |  | June 2010 |                    |      |
| 25,000    |             | Colorado Headwaters issue in June 2011 devoted to Colorado Basin issues.  |      |  | July 2010 |                    |      |
| \$950,000 | \$2,772,900 | Total approved  |      |  |           |                    |      |